

**BY ORDER OF THE CHIEF,
NATIONAL GUARD BUREAU**



MANPOWER STANDARD 21B1A1

28 AUGUST 2003

Manpower Standard

MAINTENANCE OPERATIONS CENTER (MOC)

COMPLIANCE WITH THIS PUBLICATION IS MANDATORY

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This Air National Guard Manpower Standard (ANGMS) quantifies the manpower required to accomplish the tasks described in the process oriented description (POD) for varying levels of workload in the 189th Airlift Wing whose mission it is to provide aircrew training for students from each branch of the military that flies the C-130 aircraft and from 27 foreign countries. This standard applies to the 189th Airlift Wing, Little Rock Air Force Base, Arkansas, and encompasses all major processes performed within the Maintenance Operations Center (MOC) function. It does not apply to any other units. This standard is applicable to peacetime operations only. The Air National Guard (ANG) is authority for the approval and publication of ANG Manpower Standards. Air Force (AF) and ANG directives contain policy and procedural guidance for the operation of the Maintenance Operations Center (MOC). This standard was developed in accordance with AF Instruction (AFI) 38-201, *Determining Manpower Requirements*, and AF Manual (AFMAN) 38-208, Volume 1, *Air Force Management Engineering Program (MEP) Processes*, and AFMAN 38-208, Volume 2, *Air Force Management Engineering Program (MEP) - Quantification Tools*. Send comments and suggested improvements on AF IMT 847, *Recommendation for Change of Publication*, through channels, to ANG, Management Engineering Branch (ANG/XPME/Operating Location TN [OLTN]), 106 Briscoe Drive, McGhee Tyson Air National Guard Base, TN 37777-6283.

1. STANDARD DATA.

1.1. Approval Date: 28 August 2003.

1.2. Man-hour Data Sources: The Operational Audit (historical record and technical estimate) technique was used to collect/determine man-hour/manpower data.

1.3. Standard Manpower Equation: $Y=38.36 + 35.80X$.

1.4. Workload Factor.

1.4.1. Title: X= Primary Aircraft Inventory (PAI).

1.4.2. Definition. Number of PAI authorized to support the unit training mission.

1.4.3. Source. United States Air Force (USAF) Programming Document (PD), Volume 2, maintained by ANG Financial Manager (ANG/FM).

2. Application Instructions.

2.1. Equation: Apply the equation in Paragraph 4.2., to determine the required man-hours.

2.2. Man-Hour Availability Factor (MAF): Divide the resulting man-hours by the appropriate MAF/overload factor. The answer, rounded up, will quantify the required manpower.

2.3. Upper and Lower Extrapolation Limits.

2.3.1. $Y_U = 405.950$.

2.3.2. $Y_L = 243.570$.

3. STATEMENT OF CONDITIONS. The normal hours of operation for this function are 80 hours per two-week period. The alternate work schedule of eight nine hour days, and one eight hour day is the norm. No environmental, equipment, or facility conditions affect this Manpower Standard.

DANIEL JAMES III, Lieutenant General, USAF
Director, Air National Guard

Attachment 1**GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION***References*

AFI 38-201 *Determining Manpower Requirements*

AFMAN 38-208, Volume 1, *Air Force Management Engineering Program (MEP)-Process*

AFMAN 38-208, Volume 2, *Air Force Management Engineering Program (MEP)-Quantification Tools*

AFMS 00AA, *Standard Indirect Description*

Abbreviations and Acronyms

ADS - Automated Data System

AF - Air Force

AFMS - Air Force Manpower Standard

AGE - Aerospace Ground Equipment

ANG - Air National Guard

ANGMS - Air National Guard Manpower Standard

CAMS - Core Automated Maintenance System

EWO - Emergency War Order

FCF - Functional Check Flight

ICT - Integrated Combat Turnaround

IMT - Information Management Tool

MAF - Man-Hour Availability Factor

MAF - Man-Hour Availability Factor

MEP - Management Engineering Program

MOC - Maintenance Operations Center

MSI - Manpower Standards Implementation

PAI - Primary Aircraft Authorized

PAI - Primary Aircraft Authorized

PD - Programming Document

PD - Programming Document

POD - Process Oriented Description

UMD - Unit Manpower Document

USAF - United States Air Force

UTA - Unit Training Assembly

Terms

Air National Guard Manpower Standard (ANGMS). A numbered, specialized publication that quantifies manpower requirements for a work center, it also includes approved variances. See AFI 38-201.

Man-Hour. A unit of measuring work. It is equivalent to one person working at a normal pace for 60 minutes, two people working at a normal pace for 30 minutes, or similar combination of people working at a normal pace for a period of time equal to 60 minutes.

Manpower Standard. The basic tool used to determine the minimum level of manpower required to support a function. It is a quantitative expression that represents a work center's man-hour requirements in response to varying levels of workload.

Process Oriented Description. A format that shows work center responsibilities structured for easy measurement of work categories, tasks and subtasks.

Attachment 2

**PROCESS ORIENTED DESCRIPTION
MAINTENANCE OPERATIONS CENTER**

Table A2.1. Listing of Functional Processes.

1.	MAINTENANCE MANAGEMENT. Monitors and coordinates the full cycle of production activity to fulfill the mission requirement.
1.1.	ASSISTS IN PLAN DEVELOPMENT. Assists in the development of planning data, schedules for quarterly, monthly, weekly, daily, emergency war order (EWO), contingency, or exercise requirement in conjunction with Programs and Mobility or other activity. Assists with aircraft parking plan.
1.2.	DEVELOPS, MAINTAINS, AND IMPLEMENTS PROCEDURAL GUIDE. Develops guides for use during actions such as force generations, Integrated Combat Turnaround (ICT), aircraft crash, fire, severe weather warning, etc. and coordinates with affected agency.
1.3.	COORDINATES MANAGEMENT ACTION. Coordinates with other work center necessary to accomplish the work center's mission. Informs affected activities of changes in priorities, plans, and schedules.
1.4.	COORDINATES FUNCTIONAL CHECK FLIGHT (FCF) REQUIREMENT. Coordinates and monitors the progress of aircraft FCF as established by Quality Services and Plans, Scheduling, and Documentation. Ensures FCF debrief is accomplished.
1.5.	PERFORMS AIRCRAFT DEBRIEFING TO IDENTIFY "REPEAT/RECURRING" DISCREPANCY:
1.5.1.	INPUTS MAINTENANCE DISCREPANCY AND WORK DOCUMENT, AFTO FORM 781A, <i>MAINTENANCE DISCREPANCY AND WORK DOCUMENT</i> , INTO AUTOMATED DATA SYSTEM (ADS).
1.5.2.	IDENTIFIES REPEAT DISCREPANCY AND MARKS "REPEAT" ON AFTO FORM 781A.
1.5.3.	IDENTIFIES RECURRING DISCREPANCY AND MARKS "RECURRING" ON AFTO FORM 781A.
1.5.4.	ENTERS AIRCRAFT UTILIZATION DATA (AFTO FORM 781, <i>AEROSPACE VEHICLE FLIGHT DATA DOCUMENT</i>) INTO ADS.
1.5.5.	DEVELOPS PROCEDURE FOR LOADING FLYING TIMES FOR AIRCRAFT AWAY FROM HOME STATION.

1.6.	DIRECTS AND CONTROLS PART CANNIBALIZATION:
1.6.1.	COORDINATES CANNIBALIZATION. Coordinates with staff elements to select and identify the aircraft to be cannibalized. Coordinates with Base Supply for back-ordered parts. Assigns a control number and tracks the action for all on-equipment cannibalization.
1.6.2.	PROCESSES CANNIBALIZATION WORK ORDER. Processes work order for component removal to the performing maintenance work center.
1.6.3.	DOCUMENTS CANNIBALIZATION. Maintains cannibalization log or other local record and posts completed cannibalization action when received.
1.7.	UPDATES AIRCRAFT STATUS IN CAMS (333 SCREEN) IAW AFI 21-103, <i>AIRCRAFT STATUS INVENTORY REPORTING</i> .
2.	MAINTENANCE ACTION:
2.1.	PROCESSES SCHEDULED MAINTENANCE WORK ORDER. Reviews maintenance work order and preplanned maintenance schedule. Coordinates with affected work center to obtain support necessary to facilitate work order completion.
2.1.1.	REVIEWS MAINTENANCE PLAN.
2.1.2.	VERIFIES WORK ORDER ACCURACY.
2.1.3.	POSTS WORK ORDER TO VISUAL AID.
2.1.4.	COORDINATES TO OBTAIN RESOURCE SUPPORT. Coordinates and directs assistance of other agency to complete required maintenance action.
2.2.	PROCESSES UNSCHEDULED MAINTENANCE EVENT. Processes unscheduled maintenance event and inputs into Core Automated Maintenance System (CAMS).
2.2.1.	INITIATES CAMS EVENT AND DETERMINES PRIORITY.
2.2.2.	POSTS EVENT TO VISUAL AID.
2.2.3.	OBTAINS RESOURCE SUPPORT.
2.3.	DIRECTS AIRCRAFT RELOCATION:
2.3.1.	NOTIFIES MAINTENANCE ACTIVITY. Notifies affected maintenance activity of requirement to relocate aircraft.

2.3.2.	COORDINATES TOWING OPERATION. Coordinates and ensures availability of equipment and personnel and obtains necessary clearance from control tower, operations center, etc.
2.3.3.	POSTS VISUAL AID. Posts aircraft location change to visual aid.
3.	FLYING SCHEDULE:
3.1.	COORDINATES FLYING SCHEDULE CHANGE. Coordinates flying schedule change with flight operations and affected maintenance activity.
3.2.	RECORDS DEVIATION TO FLYING SCHEDULE. Ensures all deviations to the daily flying schedule are reviewed and accurately reported.
3.3.	UPDATES VISUAL AID. Posts change relative to operational event on visual aid.
3.4.	COORDINATES FUEL REQUIREMENT. Coordinates aircraft refueling and defueling operation, schedules refueling pit, and coordinates the dispatch of refueling vehicle.
4.	SPECIALIST CONTROL:
4.1.	POSTS VISUAL AID. Posts current specialist available data to visual aid and updates availability as change occurs.
4.2.	REPORTS SPECIALIST NONAVAILABILITY. Reports specialist failure to respond to the senior controller.
4.3.	DISPATCHES SPECIALIST. Directs specialist to specific work assignment and coordinates transportation. Coordinates the pre-announcement of personnel to the alert area, as applicable.
5.	AEROSPACE GROUND EQUIPMENT (AGE):
5.1.	MONITORS STATUS OF AGE DESIGNATED AS MISSION ESSENTIAL IF IT FALLS BELOW CRITICAL LEVEL.
5.2.	COORDINATES AGE REPLACEMENT. Coordinates repair or replacement of critically short AGE item.
6.	NONTACTICAL RADIO/TELECOMMUNICATION EQUIPMENT:
6.1.	MANAGES MAINTENANCE COMMUNICATION NETWORK. Determines sufficiency of serviceable unit by periodic review of available asset.

6.2.	COORDINATES REPAIR OF UNSERVICEABLE UNIT BY CONTRACT MAINTENANCE OR OTHER MEANS.
6.3.	MAINTAINS ALTERNATE COMMUNICATION PLAN. Develops and exercises communications-out procedure.
6.4.	CONTROLS NONTACTICAL RADIO. Controls the location and utilization of radio by maintaining local record.
7.	SPECIAL PLANNING OR SCHEDULING:
7.1.	PREPARES FOR UNIT TRAINING ASSEMBLY (UTA).
7.2.	PREPARES FOR ANNUAL TOUR.
8.	INDIRECT. Indirect work involves those tasks that are not readily identifiable with the work center's specific product or service. The major categories of standard indirect work are: Administers Civilian, Officer, and Enlisted Personnel; Directs Work Center Activity; Provides Administrative Support; Prepares for and Conducts/Attends Meeting; Administers Training; Manages Supplies; Maintains Equipment; and Performs Cleanup.

Attachment 3**MANPOWER TABLE****A3.1. Standard Manpower Table**

Air Force Specialty Title	AFSC	Grade	Manpower Requirement	
Production Cont Acft	2A3XX	CIV	2	3
Total			2	3

NOTE. AFSCs may be adjusted at the discretion of the Commander.